

# Seat Comfort Systems Carbon Seat Heater SCSCFR

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THE UNIVERSAL HIGH/LOW seat heater is a heating system that has been designed to be installed in a minimal amount of time with readily available tools. The unique design allows installation into 90% of existing seat designs. The heater also has a dual LED switch which designates high and low as temperature settings.

## **Before You Start:**

Check and determine that the heaters will fit under the seat trim covers in the desired areas. The universal heater is not designed to be installed over any vertical listing channels or vertical Velcro hold-downs. Seat heaters should never be installed onto foam where an occupant detection sensor is present on the surface of the foam cushion.

**WARNING:** The installation instructions have been carefully compiled through actual vehicle installations and to the best of our ability is accurate. However, we do not warrant the accuracy of this information against changes in vehicle design, the use or misuse of this information or typographical errors. It is the responsibility of the installer to verify the proper wire attachments prior to and after the installation of the Seat Heater System to assure proper operation. We do not accept any responsibility for damage to the vehicle or injury to its occupants caused by the use of this information. Improper installation and/or connection to the incorrect wires could cause Seat Heater System or vehicle malfunction, component damage and/or personal injury for you and/or your passengers

## **GENERAL ADVICE:**

- The Seat Heater is to be installed under the seat cover. Always check the heater placement on the seat prior to beginning any work. Make sure there are no vertical tie-down seams or any obstacles that would not allow the element to be installed.
- Check for Occupant Detection System in the seat prior to installing, the heater cannot be installed over an Occupant Detection System.
- The installer is liable for any damage due to improper installation.
- All steps explained in this manual are to be followed with great care. Installation has to be performed by qualified personnel only. Improper installation will void the limited warranty and may cause physical damage to equipment or people.
- The heating system has to be connected to 12 volt accessory power. It is necessary that the system is capable of driving up to 10 Amps continuous current.
- The heating element has to be installed without any folds.
- The heating element is not to be modified by folding, cutting or in any other way.
- The wire harness has to be fitted to the seat in a way that the full range of movement of the seat is possible.
- Cars fitted with side airbags have to be treated according to the manufacturers fitting manuals. The heating element is only to be attached to the middle of the seat back foam. The connections of the side airbag(s) have to be handled thoroughly and should never be connected to any kind of power supply during the fitting process.

## **36 MONTH/36,000 MILE LIMITED WARRANTY**

Seat Comfort Systems warrants to the original retail purchaser of this product that should this product or any part thereof, under normal use and conditions, be proven to have defective material or workmanship within 36 months or 36,000 miles of the original purchase, such defect(s) will be repaired or replaced without charge for the parts. This warranty does not apply to batteries or normal wear and tear associated with the Product.

- To obtain repair or replacement with the terms of this Warranty, the product is to be returned with a dated bill of sale, description of defect to the installing dealer and/or retailer.
- This Warranty does not cover costs incurred for the removal or reinstallation of the product, and/or related components, and/or damage to the vehicle's electrical system or components.
- This Warranty does not apply to any product or part thereof which in the opinion of the Company has been damaged through alteration, improper installation, misuse, neglect, accident, or customer abuse.
- No person or representative is authorized to assume for the Company any liability other than expressed herein in connection with the sale of this product.

THE EXTENT OF THE COMPANY'S LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT PROVIDED ABOVE AND, IN NO EVENT, SHALL THE COMPANY'S LIABILITY EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER FOR THE PRODUCT.

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- Seat heaters should never be installed onto foam where an occupant detection sensor is present on the surface of the foam cushion.
- The installer is liable for any damage due to improper fitting or not following these instructions.
- Seat heater elements are to be installed on the seat foam only.
- Installation has to be performed by qualified personal only. Improper installation will void the warranty and may cause physical damage to equipment or people.

## Dismantling the seat

Disconnect and isolate the battery negative (ground) cable and wait five minutes for the system to discharge.

Dismantle the seat that will be fitted with the heating pads. In most cases stripping the seat cover is easier with the seat out of the car.

Remove all seat covers in the area you are planning to fit the seat heater and wire harness.

## Removing The Seat Cover

Separate cushion and back from each other by removing the covers and unscrewing the connecting screws. It is advised to put the seat on a dedicated worktable for the following steps.

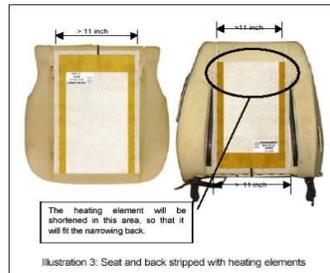
Remove the cover of both seat and back. To do so remove and dispose all upholstery clips. Unhook all other connections using a suitable screwdriver.

Make sure that there are no loose metal parts left on the foam like hog rings.

Recheck again whether the seat heating elements will fit. There must be a **minimum of 11 inches** of free space between the lateral channels. The easiest way to do this is to lay the heating elements on seat and back and verify the placement. The length of the elements can be shortened but the width is cannot be changed.

## Attaching the cushion heating element

Lay the heating element on top of the foam as shown. The wire harness has to be routed behind the cushion so they will not be noticed in the finished seat (use a razor blade to make a small incision in the foam so the wire will lay flush in the cut). Fit the heating and make sure not to fold any of the areas covered with yellow adhesive tape. Only the length is variable and can be cut to fit.



**Note: Never cut in areas covered with adhesive tape! Areas covered with adhesive tape have to be adhered on a leveled surface only.**

Remove the yellow release paper covering the adhesive strips and attach the element at the front and rear of the cushion.

Reinstall the seat cover to the cushion tie down points with the enclosed cable ties instead of the metal upholstery clips. Do not use any kind of metal cable ties or clips through the heating element. While fastening in the area of the connection wires, make sure not to crush or squeeze the wires. In addition pay attention that there are no folds in the heating element.



## Assembling the wire harness and switch

While running the wire harness you have to pay attention, that the wire cannot be cut, crimped or damaged in any other way. The wire harness is to be attached to the seat frame securely.

Plug the open connectors of the wire harness onto the open wires from the seat and back heating element and attach the wire harness to the seat frame.

Run the wire harness to the dashboard, center console or side seat shield. Drill a 20mm hole in the panel, pull the connecting wire through and then plug in the switch and push the switch into the panel (please push on the outer bezel of the switch, not the rocker).

## Electrical connection and function test

- Black to Ground
- Red to accessory power

\*Connect to a switched source capable of driving 10 Amps continuous current.

**How do I troubleshoot the seat heater?** - First, check the integrity of the element and look for any wire breaks. Second, the heater's resistance values are approximately 7 Ohms. If you cannot read a resistance value across the heater, the element may be damaged.

## Can I cut the element?

YES/NO - You may cut the length of the element but you cannot cut the width of the element. There is a conductive strip that runs along each side of the element which provided the power to the element. If this is cut, the element will not work.

## Can I cut hole or strips in the middle of the element?

- Yes, you may cut access hole for hog rings or tie-downs as long as you stay away from the conductive strips on the outside.

**Can I hog ring through the element?** - No, the element

should not be in contact with metal objects that could potentially ground the heater. The supplied plastic tie-wraps can be used to replace the hog rings or access hole can be cut for the hog rings.

## When I bench test the heater, the heater does not seem to get warm? -

The heater is designed to Automotive OEM Specifications and is the same element found in cars today. The system is designed to be used inside the seat and with an occupant in the seat. The foam, trim and occupant insulate the heater, letting the heater reach its designed set-point. If the heater is turned on, on a flat bench, the bench and the open air will remove the heat. Technically, you would be heating the air around the heater. The temperature values of the heater in this situation will vary due to ambient air temperature and bench composition and will be well below the set-point. To test the heater, sandwich the heater between 2 pieces of foam and then check the temperature after several minutes.

## When I bench test the heater, the heater works and then stops?

- The heater is designed with a bi-metal thermostat which turns the heater on and off. When the thermostat is closed, the heater is active and when it opens, the power is shut off the elements. In open air, the element will reach its set-point quickly and when the thermostat opens, the elements cool down quicker than the thermostat so when you touch the element, there is no heat even though the thermostat is still cooling down.